

In the Claims:

Please amend the claims as follows:

1. (Original) An apparatus comprising:
a channel decoder (44), responsive to an encoded signal received over a transmission channel (42), for providing a channel decoded signal (46); and
an iterative processor (52), responsive to the channel decoded signal (46), for providing a synthesized speech signal (54) meeting typicality standards which vary with channel quality deficiency.
2. (Original) The apparatus defined in claim 1, wherein the iterative processor (52) comprises:
a speech decoder with bad frame replacer (70), responsive to the channel-decoded signal (46), for providing the synthesized speech signal (54); and
a signal error analyzer (90), responsive to the synthesized speech signal (54) and responsive to the channel decoded signal (46), for providing a characteristics error signal (92) to which the speech decoder with bad frame replacer (70) is responsive, wherein the signal error analyzer (90) applies typicality standards which vary with channel quality deficiency.
3. (Currently Amended) An apparatus comprising:
a channel decoder (44), responsive to an encoded signal received over a transmission channel (42), for providing a channel decoded signal (46); and
an iterative processor (52), responsive to the channel decoded signal (46), for providing a synthesized speech signal (54) meeting typicality standards which vary with channel quality deficiency, ~~The apparatus defined in claim 1,~~

wherein the iterative processor comprises:

a speech decoder with bad frame replacer (70), responsive to a speech parameter signal (78) included in the channel-decoded signal (46), and responsive to a bad frame substitution signal (88), for providing the synthesized speech signal (54);

a bad frame counter (82), responsive to a reset signal (84) and responsive to a count signal (86), for providing the bad frame substitution signal (88);

a signal error analyzer (90), responsive to the channel-decoded signal (46) and responsive to the synthesized speech signal (54), for providing the reset signal, and for providing a characteristics error signal (92); and

a logical port (94), responsive to the characteristics error signal (92) and also responsive to a bad frame indicator signal (96) included in the channel decoded signal (46), for providing the count signal (86).

4. (Original) The apparatus defined in claim 3, wherein the iterative processor (52) further comprises a switch (98), responsive to a switch control signal (100) from the signal error analyzer (90) and also responsive to the synthesized speech signal (54), for selectively providing the synthesized speech signal (54).

5. (Original) The apparatus defined in claim 3, wherein the iterative processor (52) further comprises a decoder storage (102), responsive to a state signal (104) from the speech decoder with bad frame replacer (70), for providing a state signal (104) back to the speech decoder with bad frame replacer (70).

6. (Original) The apparatus defined in claim 1, wherein the iterative processor (52) is also directly responsive to the encoded signal received over a transmission channel (42).

7. (Original) The apparatus defined in claim 1, wherein the apparatus is a mobile communication device.
8. (Original) The apparatus defined in claim 1, wherein the apparatus is a network element in a wireless communication network.
9. (Original) The apparatus defined in claim 8, wherein the network element is a base station.
10. (Original) An apparatus comprising:
 - a channel decoder (44), responsive to an encoded signal received over a transmission channel (42), for providing a channel decoded signal (46);
 - an iterative processor (52), responsive to the channel decoded signal (46), for providing a synthesized speech signal (54) and for providing a modification command signal (60); and
 - a synthesized signal modifier (58), responsive to the synthesized speech signal (54) and to the modification command signal (60), for providing a synthesized output signal (62) meeting typicality standards which vary with channel quality deficiency.
11. (Original) The apparatus defined in claim 10, wherein the apparatus is a mobile communication device.
12. (Original) The apparatus defined in claim 10, wherein the apparatus is a network element in a wireless communication network.
13. (Original) The apparatus defined in claim 12, wherein the network element is a base station.

14. (Original) The apparatus defined in claim 10, wherein the iterative processor (52) performs only one iteration, without resynthesis.

15. (Original) The apparatus defined in claim 10, wherein the iterative processor (52) comprises:

a speech decoder with bad frame replacer (70), responsive to the channel-decoded signal (46), for providing the synthesized speech signal (54); and

a signal error analyzer (90), responsive to the synthesized speech signal (54) and responsive to the channel-decoded signal (46), for providing the modification command signal (60).

16. (Original) The apparatus defined in claim 15, wherein the iterative processor (52) performs only one iteration, without resynthesis.

17. (Original) The apparatus defined in claim 10, wherein the iterative processor (52) comprises:

a speech decoder with bad frame replacer (70), responsive to a speech parameter signal (78) included in the channel-decoded signal (46), and responsive to a bad frame substitution signal (26), for providing the synthesized speech signal (54);

a bad frame counter (82), responsive to a reset signal (84) and responsive to a count signal (86), for providing the bad frame substitution signal (88);

a signal error analyzer (90), responsive to the channel-decoded signal (46) and responsive to the synthesized speech signal (54), for providing the modification command signal (60), for providing the reset signal (84), and for providing a characteristics error signal (92); and

a logical port (94), responsive to the characteristics error signal (92) and also responsive to a bad frame indicator signal (96) included in the channel decoded signal (46), for providing the count signal (86).

18. (Original) The apparatus defined in claim 17, wherein the iterative processor (52) further comprises a switch (98), responsive to a switch control signal (100) from the signal error analyzer (90) and also responsive to the synthesized speech signal (54), for selectively providing the synthesized speech signal (54).

19. (Original) The apparatus defined in claim 17, wherein the iterative processor (52) further comprises a decoder storage (102), responsive to a state signal (104) from the speech decoder with bad frame replacer (70), for providing a state signal (104) back to the speech decoder with bad frame replacer (70).

20. (Original) The apparatus defined in claim 17, wherein the iterative processor (52) is also directly responsive to the encoded signal received over a transmission channel (42).

21. (Original) A method comprising the steps of:

providing a channel-decoded signal (46) in response to an encoded signal received over a transmission channel (42); and

executing an iterative signal processing step, in response to the channel-decoded signal (46), for providing a synthesized speech signal (54) meeting typicality requirements which vary with channel quality deficiency.

22. (Original) The method defined in claim 21, wherein the iterative signal processing step comprises the steps of:

providing the synthesized speech signal (54) in response to the channel-decoded signal (46); and

providing a characteristics error signal (92) responsive to the synthesized speech signal (54) and responsive to the channel decoded signal (46).

23. (Original) The method defined in claim 21, wherein the iterative processing step is also executed in direct response to the encoded signal received over a transmission channel (42).

24. (Original) A method comprising the steps of:

providing a channel-decoded signal (46) in response to an encoded signal received over a transmission channel (42);

executing an iterative signal processing step, in response to the channel-decoded signal (46), for providing a synthesized speech signal (54) and for providing a modification command signal (60); and

providing a synthesized output signal (62) meeting typicality standards which vary with channel quality deficiency, in response to the synthesized speech signal (54) and also in response to the modification command signal (60).

25. (Original) The method defined in claim 24, wherein the iterative signal processing step is executed only once, without resynthesis.

26. (Original) The method defined in claim 24 wherein the iterative signal processing step comprises the steps of:

providing the synthesized speech signal (54) in response to the channel-decoded signal (46); and

providing the modification command signal (60) in response to the synthesized speech signal (54) and also in response to the channel decoded signal (46).

27. (Original) The method defined in claim 26, wherein the iterative signal processing step is executed only once, without resynthesis.

28. (Original) The method defined in claim 24, wherein the iterative processing step is also executed in direct response to the encoded signal received over a transmission channel (42).